

PRIVATE HIGHER EDUCATIONAL INSTITUTION
"INTERNATIONAL ACADEMY OF ECOLOGY AND MEDICINE"
Department of Dentistry

SYLLABUS
EDUCATIONAL DISCIPLINE

«Propedeutics to pediatric therapeutic dentistry»

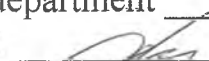
LEVEL OF HIGHER EDUCATION The second (master's) level

DEGREE OF HIGHER EDUCATION Master

FIELD OF KNOWLEDGE 22 Healthcare

SPECIALTY 221 Dentistry

COURSE 2

Considered and approved
at a meeting of the Department of Dentistry
Protocol № 1 from «01» 09 2020 p.
Acting head of the department _____
MD, prof.  Kuts P.V.

Kiev 2020

1. General information	
Subject	Propedeutics to pediatric therapeutic dentistry
Lector	Acting Head of the Department, Doctor of Medical Sciences, Professor, Kuts Pavlo Valeriyovych, Goropatska Anna-Maria Olehivna
Teacher's e-mail	forum-for-me@bigmir.net
Discipline format	Normative discipline.
The volume of the discipline	90 hours , 3 ECTS
Link to the distance learning site	maem.kiev.ua
Consultations	Web conferences in various programs (Zoom, Skype, Myit, Jitsy, Teams, Viber, Facebook, Cisco Webs). Exchange tasks via e-mail, Wandrive
2. Annotation to the course	
<p>Propaedeutics of pediatric therapeutic dentistry is a discipline that allows students to master the phantoms of certain dental manipulations used in the clinic in the treatment of caries and its complications in temporary and permanent teeth at different stages of their development. Acquired in this way special (professional) competencies students then use in the process of working directly with patients. On phantom models and removed temporary and permanent teeth, students get acquainted with the main periods of development, formation and resorption of deciduous tooth roots, periods of formation of permanent teeth in children, as well as master the basic dental manipulations for preparation and filling of carious defects. permanent teeth that are at different stages of development.</p>	
3. Purpose and objectives of the course	
<p>The purpose of teaching the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" is to master the phantom technique of dental manipulations used in the treatment of caries and its complications in temporary and permanent teeth at different stages of their development in children, to enable their further use in clinical admission of children and the formation of special (professional) competencies in the clinic of pediatric therapeutic dentistry</p> <p>The main tasks of studying the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" are:</p> <ul style="list-style-type: none"> - preparing students to work in a clinical dental office by studying dental equipment, modern dental instruments and materials, the rules of working with them; disinfection and sterilization of dental instruments; - mastering the technique of performing dental manipulations in the treatment of caries and its complications in temporary and permanent teeth at different stages of their development. 	
4. Competencies and learning outcomes	
Learning outcomes	Teaching methods
Have modern dental manipulations in the treatment of odontopathology in children	Lectures, practices, oral interviews, tests, dialogue with applicants for higher education, creative work with the creation of multimedia presentations and their presentation, independent work with literary sources
<p>- integral: Ability to solve problems and problems in the field of health care in the specialty "Dentistry" in a professional activity or in the learning process, which involves research and / or innovation and is characterized by uncertainty of conditions and requirements.</p> <p>- general:</p> <ol style="list-style-type: none"> 1. Ability to abstract thinking, analysis and synthesis; ability to learn and be modernly trained. 2. Knowledge and understanding of the subject area and understanding of the profession. 3. Ability to apply knowledge in practical situations. 	

4. Ability to communicate in the state language both orally and in writing. Ability to communicate in a second language.
5. Skills in the use of information and communication technologies.
6. Ability to search, process and analyze information from various sources.
7. Ability to adapt and act in a new situation; ability to work autonomously.
8. Ability to identify, pose and solve problems.
9. Ability to choose a communication strategy.
10. Ability to work in a team.
11. Interpersonal skills.
12. Ability to act on the basis of ethical considerations (motives).
13. Skills for safe activities.
14. Ability to evaluate and ensure the quality of work performed.
15. The desire to preserve the environment.
16. Ability to act socially responsible and civic conscious.

- special (professional, subject):

1. Recognize the moral, ethical and professional rules of the pediatric dentist.
2. Understand the moral and deontological principles of a medical specialist and the rules of professional subordination in the pediatric dentistry clinic.
3. Learn to promote a healthy psychological microclimate in the team; learn the basics of the legal norms of the relationship pediatric dentist → patient (child).
4. Demonstrate on phantoms the ability to use basic dental tools, materials and use dental equipment in pediatric dentistry:
 - to get acquainted with the structure of the children's dental office, department, clinic;
 - master the dental equipment of a children's dental clinic;
 - to study the basic dental tools used during the dental reception of children;
 - to study the classification of dental filling materials, materials for root fillings used in children;
 - to study the basic requirements for dental materials, their properties and indications for use in children.
5. Demonstrate on the phantoms of dental manipulations in the treatment of teeth in children:
 - preparation of carious cavities of different classes in temporary and permanent teeth, taking into account the type of filling material;
 - filling of carious cavities of different classes in temporary and permanent teeth with different filling materials;
 - final processing of fillings from all types of materials used at children's dental reception;
 - application and removal of temporary fillings and hermetic bandages in the treatment of caries and its complications in temporary and permanent teeth in children;
 - imposition of medical and insulating pads in temporary and permanent teeth in children;
 - instrumental and medical treatment of the root canals of temporary and permanent teeth, taking into account the stage of tooth development;
 - filling (temporary or permanent) of the root canals of temporary and permanent teeth with different materials, taking into account the stage of tooth development.
6. Distinguish the features of the principles in asepsis and antiseptics in the clinic of pediatric therapeutic dentistry:
 - to study modern requirements for sterilization of instruments in the pediatric dentistry clinic;
 - realize the importance of following the rules of asepsis and antiseptics at the children's dental office;
 - master the rules of control over the effectiveness of sterilization;
 - to determine methods of preventing conditions for the spread of infection in children's institutions.

5. Organization of course training

The volume of the course

Type of lesson

Total amount of hours

Lectures		10	
Practical classes		30	
Independent work		50	
<i>Course signs</i>			
Semester 4	Specialty <u>221 Dentistry</u>	Course (year of study) 2	Normative discipline
<i>Course thematics</i>			
THEMATIC PLAN OF LECTURES			
№	Topic	Hours	
1.	Historical stages of development of pediatric dentistry. Anatomical and morphological, histological and radiological features of the tooth, jaw system in children at different ages. Physiology of teething. Signs physiological teething.	2	
2.	Basic principles of preparation of hard tissues of teeth in children. Conditions of painless preparation of carious cavities Features of preparation of carious cavities of various classes in temporary and permanent teeth in children.	2	
3.	Dental filling materials for temporary and permanent teeth, their main physicochemical and biological properties Classification. The main selection criteria .. Features of carious fillings cavities with various filling materials	2	
4.	Modern endodontic instruments. Classification, indications, technique of use	2	
5.	Principles of instrumental and medical treatment of root canals in pediatric therapy dentistry. Root canal filling in deciduous and permanent teeth in children.	2	
Total		10	
THEMATIC PLAN OF PRACTICAL CLASSES			
№	Topic	Hours	
1.	Organization of work and equipment of the dental office. Dental tools for therapeutic reception: types, purpose. Disinfection and sterilization of dental equipment and tools Basic rules of work in "four hands".	2	
2.	Topographic anatomy of temporary and permanent teeth at different stages of development. Modeling of teeth from plastic and hard materials. Making phantoms.	2	
3.	Physiology and pathology of teething. Terms of formation and resorption of roots of temporary and permanent teeth	2	
4.	Основні правила і етапи препарування каріозних порожнин, елементи каріозної порожнини, необхідні для препарування інструменти.	2	

5.	Preparation of carious cavities of I and B classes in temporary and permanent teeth with unformed root. Choice of tools	2
6.	Preparation of carious cavities of II, III, IV class in temporary and permanent teeth with unformed root. Choice of tools	2
7.	Classification of filling materials, their properties and indications for use	2
8.	Filling of carious cavities of I and V classes in temporary and permanent teeth with dental cements and amalgam	2
9.	Technique of filling class II carious cavities with dental cements and amalgam in temporary and permanent teeth. Restore contact point.	2
10.	Composite filling materials and compomers. Technique of filling carious cavities I and V classes in temporary and permanent teeth.	2
11.	Technique of filling carious cavities of III and IV class in temporary and permanent teeth in children .Restoration of the shape and color of the tooth, contact point.	2
12.	Technique of instrumental and medical treatment of root canals in temporary and permanent teeth with unformed roots Modern endodontic instruments: types, purpose, choice	2
13.	Sealing materials for temporary and permanent root canal obturation. Sealing technique root canals in temporary teeth	2
14.	The technique of filling root canals in permanent teeth at different stages of their development. Concept apexogenesis and apexification	2
15.	Differentiated credit	2
Total		30

THEMATIC PLAN OF INDEPENDENT WORK OF STUDENTS (IWS)

Thematic plan of independent work of students

№	Topic	Hours	type of control
1.	Preparation for practical classes (theoretical development of practical skills, abilities), topic numbers: 1 - 14	28	Current on practical classes
2.	Independent elaboration of topics that are not included in the plan of classes, topics: 1	22	Current on practical

-6		classes
1. Modern concepts of preparation of carious cavities (according to Black, Lukomsky, preparation for preventive sealing). Alternative methods of removal of cariously affected tissues (chemical-mechanical preparation of carious cavities in children, ART-method)	3	
Modern matrix systems and matrix holders. Contact restoration technique point when filling teeth.	4	
3. Finishing of seals from different sealing materials: the choice of tools, accessories, technique.	4	
4. Modern photopolymerizers: types, purpose, control of lamp power. Means of protection of the doctor and the patient.	3	
5. Modern materials for permanent root canal obturation in permanent teeth: calcium-containing, polymeric, glass ionomer, zinc oxide deugenol. Their properties, application technique.	4	
6. Adhesive systems of different generations and their application in dentistry. Types, warehouse, properties, application technique.	4	
Total	50	

6. Course evaluation system

General course evaluation system	<p>Current control is performed based on the control of theoretical knowledge, skills and abilities in practical classes. Independent study students are assessed in practical classes, and is an integral part of the final grade of the student. Current control is performed during the training sessions and aims at checking the assimilation of students learning the material. Forms of current control are:</p> <ul style="list-style-type: none"> a) test tasks with a choice of one correct answer, with the definition of the correct sequence of actions, with determination of the conformity, defining the specific portion of the photo or diagram ("detection"); b) individual oral questioning, interview; c) the solution of typical situational tasks; g) control of practical skills; <p>Grades on the national scale ("excellent" - 5, "good" - 4, "satisfactory" - 3, "unsatisfactory" - 2), received by students, are displayed in the journals of attendance and academic group performance.</p> <p>Final control</p> <p>The final control is the form of a differentiated credit at the end of the 1st semester and at the end of the 2nd semester upon completion of the course of medical biology. The semester exam is a form of final control of mastering by the student of theoretical and practical material on academic discipline. The final control (exam) is carried out</p>
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at the last control lesson.

Students are admitted to the FC who have attended all the classes provided by the curriculum in the discipline and while studying the module scored the number of points not less than the minimum (**72 points**). A student who, for good or bad reasons, has missed classes, is allowed to rework academic debt for a certain period of time.

Evaluation of current educational activities. During the assessment of mastering each topic for the current educational activity of the student scores are set on a 4-point (national) assessment scale. This takes into account all types of work provided by the discipline program. The student must receive a score on each topic. Scores on the traditional scale are converted into points. The final assessment of the current academic activity is the arithmetic mean (the sum of scores for each lesson is divided by the number of lessons per semester) and translated into points according to **Table 2.**

Table 2. Conversion of the average score for the current activity into a multi-point scale (for disciplines completed by diff.credit, exam)

4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale	4- point scale	120- point scale
5	120	4,45	107	3,91	94	3,37	81
4,95	119	4,41	106	3,87	93	3,33	80
4,91	118	4,37	105	3,83	92	3,29	79
4,87	117	4,33	104	3,79	91	3,25	78
4,83	116	4,29	103	3,74	90	3,2	77
4,79	115	4,25	102	3,7	89	3,16	76
4,75	114	4,2	101	3,66	88	3,12	75
4,7	113	4,16	100	3,62	87	3,08	74
4,66	112	4,12	99	3,58	86	3,04	73
4,62	111	4,08	98	3,54	85	3	72
4,58	110	4,04	97	3,49	84	<3	Not enough
4,54	109	3,99	96	3,45	83		
4,5	108	3,95	95	3,41	82		

*The maximum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is **120 points**.*

*The minimum number of points that a student can collect for current educational activity during semester in order to be admitted to the exam is **72 points**.*

Calculating of the number of points is based on obtained marks of student according to traditional scale while learning subject during the semester, by calculating the arithmetic mean (AM) that is rounded to two signs after comma.

Evaluation of independent work of students. Independent work of students, which is provided by the topic of the lesson together with the classroom work, is evaluated during the current control of the topic in the relevant lesson. Assimilation of topics that are submitted only for independent work is checked during the final module control.

Evaluation of final control.

The maximum number of points that a student can score during the exam is **80 points.**

The final control is considered credited if the student scored at least 60% of the maximum amount of points (for a 200-point scale - at least **50 points**).

Determining the number of points that a student scored in the discipline: the number of points that a student scored in the discipline is defined as the sum of points for the current academic activity (Table1) and for the final control (diff.credit, exam) (Table 3).

Table 3. Scale of assessment of differentiated (exam) credit:

Traditional scale	Points
«5»	70-80

	«4»	60-69
	«3»	50-59
Requirements for written work	The final written work is performed in the form of a test.	
Practical classes	Classroom work	
<i>The 1st semester</i>		
Classroom work - score from 2 to 5 for each topic.		
<i>Differentiated credit (semester control)</i> Semester control at the end of the 1st semester is provided in the form of Differentiated credit. (Table 2) Provides a final grade on a 120-point scale as the sum of grades for the current control of knowledge (oral examination, written survey, Practical work, abstracts). Semester control includes control of theoretical and practical training.		
Amount: minimum 72 + 50 = 122, maximum 120 + 80 = 200		
<i>The 2nd semester</i>		
Classroom work - score from 2 to 5 for each topic.		
Final module control is evaluated from 50 to 80 points and consists of: Test control - 40 tests = 40 points (1 point for the correct answer to 1 test). Answer to 2 theoretical questions of 20 points for each = 40 points. Amount: 80.		
Amount: minimum 72 + 50 = 122, maximum 120 + 80 = 200		
<p>The list of theoretical questions to prepare students for the exam.</p> <p>The list of practical skills for final module control</p> <p>As a result of studying the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" the student must know:</p> <ul style="list-style-type: none"> - basic dental instruments for therapeutic use, their purpose; - purpose, types, disinfectants of dental instruments and equipment ; - purpose, types, means of sterilization of dental instruments and equipment, sterilization quality control; - anatomical structure of temporary teeth; - anatomical structure of permanent teeth; - differences between temporary and permanent teeth; - classification of carious cavities according to Black; - principles of preparation of carious cavities, their characteristics, advantages and disadvantages; - the main stages of preparation of the carious cavity, the tools used; - principles of preparation and formation of the cavity of the first class in temporary and permanent teeth in children; - principles of preparation and formation of the cavity of the second class in temporary and permanent teeth in children; - principles of preparation and formation of the cavity of class III in temporary and permanent teeth in children; - principles of preparation and formation of the cavity of the IU class in temporary and permanent teeth in children; - principles of preparation and formation of the cavity of the B class in temporary and permanent teeth in children; - classification of dental filling materials; - features of preparation of carious cavity depending on the choice of filling material (amalgam, composite, SIC); - technique of preparation of zinc-phosphate cements and application of insulating gaskets; 		

- groups, basic requirements for materials for medical pads, technique of applying medical pads;
- characteristics, groups, positive properties and disadvantages of glass ionomer cements;
- technique of preparation and filling with glass ionomer cement;
- main components, positive and negative properties of silver amalgam, types of amalgam;
- amalgam filling technique, necessary tools;
- modern classification of composite filling materials;
- types, purpose, technique of application of adhesive systems of different generations;
- positive and negative properties, indications for the use of chemical hardening composite materials;
- technique of filling a carious cavity with composite materials of chemical hardening;
- positive and negative properties, indications for the use of light-cured composite materials;
- technique of filling a carious cavity with photopolymer composite material;
- general characteristics, indications for use, technique of sealing with compomers;
- features of filling of carious cavities of I and B classes in temporary and permanent teeth with different filling materials;
- technique of restoration of a contact point at sealing of carious cavities of the II class, accessories necessary for this purpose;
- technique of filling carious cavities of class III in permanent teeth with restoration of the contact point;
- features of filling of carious cavities of IU class in permanent teeth, restoration of anatomical form (restoration) of a tooth;
- technique of final processing of permanent seal from different filling materials, necessary tools and accessories;
- topography and technique of opening the tooth cavity in temporary teeth;
- topography and technique of opening the tooth cavity in permanent teeth ;
- modern classification of endodontic instruments, their purpose, rules of use;
- the main stages of endodontic treatment;
- root canal instrumentation techniques and tools used at each stage;
- characteristics, indications for the implementation of modern techniques of endodontic treatment of root canals;
- standard technique of instrumental treatment of root canals in temporary teeth and in permanent teeth with unformed root;
- characteristics of filling materials for temporary obturation of root canals;
- technique of performing temporary obturation of root canals in temporary and permanent teeth at different stages of their development;
- modern classification of materials for root fillings;
- types, indications for use, positive and negative properties of sealers and fillers for root canals;
- characteristics, advantages and disadvantages of materials used for root fillings in temporary teeth;
- characteristics, advantages and disadvantages of materials used for root fillings in permanent teeth;
- technique of filling root canals with gutta-percha in permanent teeth with unformed root;
- technique of filling root canals with gutta-percha (lateral condensation method) in permanent teeth with a formed root;
- technique of filling root canals with paste or paste with one pin.

As a result of studying the discipline "Propaedeutics of Pediatric Therapeutic Dentistry" the student must be able to:

- distinguish between temporary and permanent teeth by anatomical features;
- to prepare carious cavities of the I class in temporary and permanent teeth on a phantom;
- prepare carious cavities of class II in temporary and permanent teeth on the phantom;
- dissect carious cavities I

Circumstance of	1. Semester control at the end of the 1st semester is provided in the form of a differential credit. (Table 2) Provides a final score on a 120-point scale as the sum of
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admission to the final control	<p>scores for the current control of knowledge (oral examination, written survey, tests, verification of identification of micropreparations, abstracts), the results of 2 content modules.</p> <p>2. Students are allowed to take the differentiated credit, exam only if there is no debt for the implementation of the curriculum.</p>
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7. Course policy

The organization of the educational process is carried out with the use of the European Credit Transfer System (ECTS) to assess student performance. The points gained in the current survey, independent work and points of the final control are credited. This must take into account the student's presence in class and his activity during practical work. Inadmissible: absences and late classes; use of a mobile phone, tablet or other mobile devices during the lesson (except for the cases provided by the curriculum and methodical recommendations of the teacher); copying and plagiarism; untimely performance of the task, the presence of unsatisfactory grades for 50% or more of the submitted theoretical and practical material.

8. RECOMMENDED LITERATURE

1.Basic:

- Kaskova L.F., Berezhna o.E., Vashchenko I.U. propaedeutics of a childtherapeutic dentistry dentistry (English is my). - poltava, 2013. -140 p.
- Paediatric dentistry/ Richard Welbury, Monty Duggal – 3rd ed., 2005 Copyright., P. 306-310.
- L.A. Khomenko. Pediatric Therapeutic Dentistry.- K.:Book-plus, 2012

2.Additional:

1. Advanced Endodontics by Nageswar Rao R. -2009. - 374p.
 2. Harley's Endodontics in Clinical Practice 6th Edition by Bun San Chong. Churchill Livingstone, 2010. - 312p.
 3. Handbook of Clinical Techniques in Paediatric Dentistry by Jane A.Soxman. - WileyBlackwell, 2015. - 208p.
 - 4' Paediatric Dentistry at a Glance / Monty Duggal, Angus Cameron, Jack Toumba. - Wiley-Blackwell, 2012. - 120p.
1. Paediatric Dentistry: A Clinical Approach, 3rd Edition / Goran Koch, Sven Poulsen, Ivar Espelid, Dorte Haubek. - wiley-Blackwell, 2016.- 40gp.

Lector  Goropatska Anna-Maria Olehivna